

ABSTRACT OF THE DISCLOSURE

Disclosed is a projection optical system  
having at least one lens, at least one concave mirror,  
and at least one diffractive optical element. In one  
5 preferred form of the invention, the projection  
optical system includes a first imaging optical system  
having the at least one lens and the at least one  
concave mirror, for imaging an intermediate image of  
an object, and a second imaging optical system having  
10 the at least one lens and at least one diffractive  
optical element, for projecting the intermediate image  
onto an image plane.

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